

*Observations of Occultations of Stars by the Moon and of Phenomena of Jupiter's Satellites made at the Royal Observatory, Greenwich, in the Year 1899.*

*Communicated by the Astronomer-Royal.*

Day. 1899.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
Jan. 19	Disapp. $\mu$ Arietis	Old Altazimuth	100	Dark	8 4 21.29	P. M.
Feb. 22	Disapp. Piazzi VIII. 106	Sheepshanks Equat.	100	,"	12 41 44.13	H.
22	" "	Astrographic Equat.	120	,"	12 41 43.61	R. C.
22 (a)	Reapp. "	Sheepshanks Equat.	100	Bright	13 5 38.91	H.
April 17	Reapp. 3 Cancer	Sheepshanks Equat.	100	Dark	10 44 47.71	R.
May 26 (a)	Reapp. 7 Sagittarii	Sheepshanks Equat.	100	,"	12 38 53.37	W. B.
26	" 9 Sagittarii	Sheepshanks Equat.	55	,"	13 15 24.89	W. B.
July 19	" Bradley 2153	Sheepshanks Equat.	55	,"	9 17 16.81	W. S.
19	" 26 Ophiuchi	Sheepshanks Equat.	55	,"	9 24 38.11	W. S.
Dec. 16	Disapp. B. D. 22° 991	28-inch Equat.	200	Eclipsed	12 16 8.46	W. B.
16	Lat. 107°08'-9	Merz 13-inch Equat.	265	,"	12 17 2.66	D.
16 (b)	" "	Astrographic Equat.	225	,"	12 17 2.50	H.
16	" "	28-inch Equat.	200	,"	12 17 3.13	W. B.
16	" "	Sheepshanks Equat.	150	,"	12 17 2.81	W.

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Day.	Phenomenon.	Telescope.	Power.	Moon's Limb	Mean Solar Time of Observation.	Observer.
Dec. 1899.	Disapp. Piazzi V. 184	Merz 13-inch Equat.	265	Eclipsed	12 22 55 <sup>38</sup>	D.
16 (b)	"	Astrographic Equat.	225	"	12 22 55 <sup>42</sup>	H.
16	"	28-inch Equat.	200	"	12 22 56 <sup>15</sup>	W. B.
16	"	Sheepshanks Equat.	150	"	12 22 55 <sup>94</sup>	W.
16	"	Merz. 13-inch Equat.	265	"	12 25 5 <sup>82</sup>	D.
16	"	Astrographic Equat.	225	"	12 25 6 <sup>37</sup>	H.
16 (b)	"	28-inch Equat.	200	"	12 25 6 <sup>71</sup>	W. B.
16	"	Sheepshanks Equat.	150	"	(12 25 9 <sup>09</sup> )	W.
16 (c)	"	28-inch Equat.	200	"	12 27 44 <sup>18</sup>	W. B.
16 (c)	"	Merz 13-inch Equat.	265	"	12 37 1 <sup>96</sup>	D.
16 (d)	B. D. 22° 1000	Astrographic Equat.	225	"	12 37 1 <sup>53</sup>	H.
16	"	28-inch Equat.	200	"	12 37 1 <sup>85</sup>	W. B.
16	"	Sheepshanks Equat.	150	"	12 37 1 <sup>95</sup>	W.
16	"	28-inch Equat.	200	"	12 41 39 <sup>29</sup>	W. B.
16	"	Merz 13-inch Equat.	265	"	12 54 38 <sup>95</sup>	D.
16 (c)	Lat. 10739-40	Astrographic Equat.	225	"	12 54 38 <sup>15</sup>	H.
16	"	28-inch Equat.	200	"	12 54 39 <sup>06</sup>	W. B.
16	"	Sheepshanks Equat.	150	"	12 54 39 <sup>38</sup>	W. B.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
1899.				Eclipsed	12 54 39.16	P. M.
16	Disapp. Lal. 10739-40	Corbett Tel.	100			
	" Lal. 10741-2	Merz 13-inch Equat.	265	"	13 0 53.83	D.
16	" "	Astrographic Equat.	225	"	13 0 54.04	H.
16	" "	28-inch Equat.	200	"	13 0 53.94	W. B.
16	" "	Sheepshanks Equat.	150	"	13 0 53.57	W.
16	" "	Corbett Tel.	100	"	13 0 53.84	P. M.
16	" "	28-inch Equat.	200	"	13 3 53.35	W. B.
16	" "		200	"	13 5 35.67	W. B.
16	" "		200	"	13 6 37.01	W. B.
16	" "		200	"	13 8 19.13	W. B.
16	" Lal. 10745	Merz 13-inch Equat.	265	"	13 9 4.19	D.
16 (b)	" "	Astrographic Equat.	225	"	13 9 4.12	H.
16	" "	28-inch Equat.	200	"	13 9 4.61	W. B.
16	" "	Sheepshanks Equat.	150	"	13 9 4.66	W.
16	" "	28-inch Equat.	200	"	13 14 3.58	W. B.
16	Anonymous <i>g</i>	Merz 13-inch Equat.	265	"	13 20 34.89	D.
16 (e)	" "	Astrographic Equat.	225	"	13 20 34.73	H.
16	" "	28-inch Equat.	200	"	13 20 35.21	W. B.

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Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. (h m s)	Observer.
Dec. 16 (a)	Reapp. B. D. $22^{\circ} 991$	Sheepshanks Equat.	150	Eclipsed	(13 20 51.08)	W.
16	Disapp. B. D. $22^{\circ} 1009$	Merz. 13-inch Equat.	265	"	13 28 20.60	D.
16 (a)	" "	Astrographic Equat.	225	"	13 28 19.66	H.
16	" "	28-inch Equat.	200	"	13 28 19.44	W. B.
16 (c)	Reapp. Piazzi V. 184	Sheepshanks Equat.	150	"	(13 28 24.81)	W.
16	" "	Merz 13-inch Equat.	265	"	13 31 2.16	D.
16 (e)	" "	Astrographic Equat.	225	"	13 31 2.32	H.
16	" "	28-inch Equat.	200	"	13 31 2.50	W. B.
16	" "	Sheepshanks Equat.	150	"	13 31 1.77	W.
16	" "	Merz 13-inch Equat.	265	"	13 35 25.45	D.
16 (e)	" "	Astrographic Equat.	225	"	13 35 25.92	H.
16	" "	28-inch Equat.	200	"	13 35 26.19	W. B.
16	" "	Sheepshanks Equat.	150	"	13 35 26.07	W.
16	" "	Merz 13-inch Equat.	265	"	13 39 58.70	D.
16	" "	Astrographic Equat.	225	"	13 40 0.57	H.
16	" "	28-inch Equat.	200	"	13 39 59.44	W. B.
16	" "	Sheepshanks Equat.	150	"	(13 40 3.43)	W.
16	" "	Merz 13-inch Equat.	265	"	13 40 24.53	D.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation.	Observer.
Dec. 16 <sup>1899</sup>	Reapp. B. D. $22^{\circ} 999$	28-inch Equat.	200	Eclipsed	13 40 25.27	W. B.
16	Disapp. B. D. $22^{\circ} 1014$	Merz 13-inch Equat.	265	"	13 49 46.58	D.
16	"	28-inch Equat.	200	"	13 49 46.33	W. B.
16	"	"	200	"	13 54 37.73	W. B.
16	Anonymous <i>h</i>	"	200	"	13 55 55.43	W. B.
16	Anonymous <i>j</i>	"	265	"	13 57 36.80	D.
16	Reapp. Lal. 10745	Merz 13-inch Equat.	225	"	13 57 33.80	H.
16	"	Astrographic Equat.	150	"	13 57 36.27	W.
16	"	Sheepshanks Equat.	265	"	13 58 22.48	D.
16	"	Merz 13-inch Equat.	225	"	13 58 21.58	H.
16	"	Astrographic Equat.	265	"	(14 10 40.66)	D.
16	"	Merz 13-inch Equat.	225	"	14 10 34.09	H.
16 (a)	B. D. $22^{\circ} 1003$	Astrographic Equat.	200	"	14 10 34.43	W. B.
16	"	28-inch Equat.	150	"	14 10 32.56	W.
16	"	Sheepshanks Equat.	200	"	14 31 0.68	W. B.
	28-inch Equat.					

## Notes.

(a) Not considered a good observation. (b) Star apparently projected on limb before disappearance.  
 (c) Star very faint. (d) Star appeared to take  $0^{\circ}2^{\circ}$  to disappear. (e) Sudden.

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## of Occultations of Stars etc.

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Day.	Satellite.	Phenomenon.	Telescope.	Power.	Mean Solar Time of N.A.			Mean Solar Time of N.A.	Observer.
					h	m	s		
April 18	III. (a)	Occ. R. Last contact	Sheepshanks Equat.	120	10	51	4'91	10 41	B.
May 6	II.	Tr. Ing. First contact	"	"	9	40	3'99	9 42	H.
6	II.	Bisection	"	"	9	42	48'55	9 42	"
6	II.	Last contact	"	"	9	45	23'13	9 42	"
6	I.	Occ. D. First contact	"	"	11	53	57'17	11 56	"
6	I.	Bisection	"	"	11	56	11'80	11 56	"
6	I.	Last seen	"	"	11	58	21'45	11 56	"
6	II.	Tr. Egr. First contact	"	"	11	55	11'97	11 56	"
6	II.	Bisection	"	"	11	56	56'68	11 56	"
6	II.	Last contact	"	"	12	0	41'06	11 56	"

## Note.

(a) The satellite emerged very slowly.

The observations of occultations of stars on December 16 were made during a partial eclipse of the Moon. The initials D., H., B., W. B., R., H. F., R. C., W., P. M., W. S., are those of Mr. Dyson, Mr. Hollis, Mr. Bryant, Mr. Bowyer, Mr. Rendell, Mr. Furner, Mr. Witchell, Mr. Cheeseman, Mr. Melotte, and Mr. Stevens respectively.

Royal Observatory, Greenwich,  
1900 January 12.